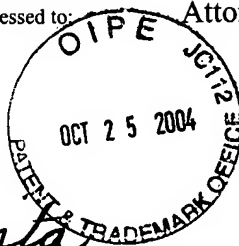


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PATENT
Attorney Docket No.: 018563-002910US
Client Reference No.: AT-00084.1



TOWNSEND and TOWNSEND and CREW LLP

By: JoAnn Evangelista
JoAnn Evangelista

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

PAVLOVSKAIA, ELENA et al.

Application No.: 10/087,153

Filed: February 28, 2002

For: SYSTEMS AND METHODS FOR
REMOVING GINGIVA FROM
COMPUTER TOOTH MODELS

Customer No.: 46718

Confirmation No. 3200

Examiner: MANAHAN, TODD E.

Technology Center/Art Unit: 3732

**SUPPLEMENTAL INFORMATION
DISCLOSURE STATEMENT UNDER
37 CFR §1.97 and §1.98**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Electronic copies of the references are enclosed on 1 CD-ROM disk.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

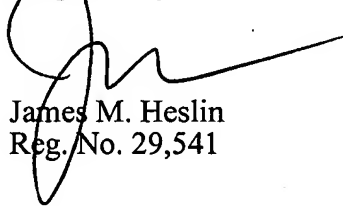
The references cited in the accompanying PTO/SB/08A and PTO/SB/08B, were identified by either or both parties in litigation between Align Technology, Inc., assignee of the above-referenced patent application, andOrmco Corporation in case no. SACV 03-16-GLT (ANX) before the U.S. District Court, Central District of California, Southern Division, as being

potentially relevant to the design, fabrication, and/or use of removable orthodontic appliances and/or to the use of computers or other automatic means for calculating final or intermediate tooth positions for orthodontic treatment.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



James M. Heslin
Reg. No. 29,541

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| Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | Complete if Known | |
| | | Application Number | 10/087,153 |
| | | Filing Date | February 28, 2002 |
| | | First Named Inventor | PAVLOVSKAIA, ELENA |
| | | Art Unit | 3732 |
| | | Examiner Name | MANAHAN, TODD E. |
| Sheet 1 of 10 | Attorney Docket Number | 018563-002910US | |

| U.S. PATENT DOCUMENTS ⁺ | | | | | |
|------------------------------------|-----------------------|------------------------------------------|--------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------|
| Examiner Initials [*] | Cite No. ¹ | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number Kind Code ² (if known) | | | |
| | AA | 2,467,432 | 04-19-1949 | Kesling | |
| | AB | 3,660,900 | 05-09-1972 | Andrews | |
| | AC | 3,860,803 | 01-14-1975 | Levine | |
| | AD | 3,916,526 | 11-04-1975 | Schudy | |
| | AE | 3,950,851 | 04-20-1976 | Bergersen | |
| | AF | 4,014,096 | 03-29-1977 | Dellinger | |
| | AG | 4,195,046 | 03-25-1980 | Kesling | |
| | AH | 4,324,546 | 04-13-1982 | Heitlinger et al. | |
| | AI | 4,348,178 | 09-07-1982 | Kurz | |
| | AJ | 4,478,580 | 10-23-1984 | Barrut | |
| | AK | 4,504,225 | 03-12-1985 | Yoshii | |
| | AL | 4,505,673 | 03-19-1985 | Yoshii | |
| | AM | 4,575,805 | 03-11-1986 | Moermann, et al. | |
| | AN | 4,611,288 | 09-09-1986 | Duret et al. | |
| | AO | 4,656,860 | 04-14-1987 | Orthuber et al. | |
| | AP | 4,663,720 | 05-05-1987 | Duret et al. | |
| | AQ | 4,742,464 | 05-03-1988 | Duret et al. | |
| | AR | 4,755,139 | 07-05-1988 | Abbatte et al. | |
| | AS | 4,763,791 | 08-16-1988 | Halverson et al. | |
| | AT | 4,793,803 | 12-27-1988 | Martz | |
| | AU | 4,798,534 | 01-17-1989 | Breads | |
| | AV | 4,837,732 | 06-06-1989 | Brandestini et al. | |
| | AW | 4,850,864 | 07-25-1989 | Diamond | |
| | AX | 4,856,991 | 08-15-1989 | Breads et al. | |
| | AY | 4,936,862 | 06-26-1990 | Walker et al. | |
| | AZ | 4,937,928 | 07-03-1990 | van der Zel | |
| | BA | 4,964,770 | 10-23-1990 | Steinbichler et al. | |
| | BB | 4,975,052 | 12-04-1990 | Spencer et al. | |
| | BC | 5,011,405 | 04-30-1991 | Lemchen | |
| | BD | 5,017,133 | 05-21-1991 | Miura | |
| | BE | 5,027,281 | 06-25-1991 | Rekow et al. | |
| | BF | 5,035,613 | 07-30-1991 | Breads et al. | |
| | BG | 5,055,039 | 10-08-1991 | Abbatte et al. | |
| | BH | 5,059,118 | 10-22-1991 | Breads et al. | |
| | BI | 5,100,316 | 03-31-1992 | Wildman | |
| | BJ | 5,121,333 | 06-09-1992 | Riley et al. | |
| | BK | 5,128,870 | 07-07-1992 | Erdman et al. | |
| | BL | 5,131,843 | 07-21-1992 | Hilgers et al. | |
| | BM | 5,131,844 | 07-21-1992 | Marinaccio et al. | |
| | BN | 5,139,419 | 08-18-1992 | Andreiko et al. | |
| | BO | 5,184,306 | 02-02-1993 | Erdman et al. | |
| Examiner Signature | | | | Date Considered | |

⁺ EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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| Substitute for form 1449A/PTO | | | Complete if Known | | |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i> | | | Application Number | 10/087,153 | |
| | | | Filing Date | February 28, 2002 | |
| | | | First Named Inventor | PAVLOVSKAIA, ELENA | |
| | | | Art Unit | 3732 | |
| | | | Examiner Name | MANAHAN, TODD E. | |
| Sheet | 2 | of | 10 | Attorney Docket Number | 018563-002910US |

| U.S. PATENT DOCUMENTS+ | | | | | |
|------------------------|--------------------------|------------------------------------------|--------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------|
| Examiner Initials* | Cite No. ¹ | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number Kind Code ² (if known) | | | |
| | BP | 5,186,623 | 02-16-1993 | Breads et al. | |
| | BQ | 5,257,203 | 10-26-1993 | Riley et al. | |
| | BR | 5,273,429 | 12-28-1993 | Rekow et al. | |
| | BS | 5,278,756 | 01-11-1994 | Lemchen et al. | |
| | BT | 5,338,198 | 08-16-1994 | Wu et al. | |
| | BU | 5,340,309 | 08-23-1994 | Robertson | |
| | BV | 5,342,202 | 08-23-1994 | Deshayes | |
| | BW | 5,368,478 | 11-29-1994 | Andreiko et al. | |
| | BX | 5,382,164 | 01-17-1995 | Stern | |
| | BY | 5,395,238 | 03-07-1995 | Andreiko et al. | |
| | BZ | 5,431,562 | 11-11-1995 | Andreiko et al. | |
| | CA | 5,440,496 | 08-08-1995 | Andersson et al. | |
| | CB | 5,447,432 | 09-05-1995 | Andersson et al. | |
| | CC | 5,452,219 | 09-19-1995 | Dehoff et al. | |
| | CD | 5,454,717 | 10-03-1995 | Andreiko et al. | |
| | CE | 5,456,600 | 10-10-1995 | Andreiko et al. | |
| | CF | 5,474,448 | 12-12-1995 | Andreiko et al. | |
| | CG | 5,518,397 | 05-21-1996 | Andreiko et al. | |
| | CH | 5,533,895 | 07-09-1996 | Andreiko et al. | |
| | CI | 5,542,842 | 08-06-1996 | Andreiko et al. | |
| | CJ | 5,549,476 | 08-27-1996 | Stern | |
| | CK | 5,587,912 | 12-24-1996 | Andersson et al. | |
| | CL | 5,605,459 | 02-25-1997 | Kuroda et al. | |
| | CM | 5,607,305 | 03-04-1997 | Andersson et al. | |
| | CN | 5,645,421 | 07-08-1997 | Slootsky | |
| | CO | 5,655,653 | 08-12-1997 | Chester | |
| | CP | 5,683,243 | 11-04-1997 | Andreiko et al. | |
| | CQ | 5,733,126 | 03-31-1998 | Andersson et al. | |
| | CR | 5,740,267 | 04-14-1998 | Echerer et al. | |
| | CS | 5,975,893 | 11-02-1999 | Chishtil et al. | |

| FOREIGN PATENT DOCUMENTS | | | | | | | | |
|--------------------------|--------------------------|---------------------------|---------------------|-----------------------------------|--------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|
| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | | | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
| | | Country Code ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
| | CT | EP | 091,876 | A1 | 10-19-1983 | Duret | | <input type="checkbox"/> |
| | CU | EP | 299,490 | A2 | 01-18-1989 | Steinbichler et al. | | |
| | CV | EP | 376,873 | A2 | 07-04-1990 | Shafir | | |
| | CW | EP | 490,848 | B1 | 06-17-1992 | Andersson et al. | | |
| | CX | EP | 541,500 | A1 | 06-12-1998 | Andersson et al. | | |

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| Examiner Signature | | Date Considered | |
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|------------------------|--------------------|
| Application Number | 10/087,153 |
| Filing Date | February 28, 2002 |
| First Named Inventor | PAVLOVSKAIA, ELENA |
| Art Unit | 3732 |
| Examiner Name | MANAHAN, TODD E. |
| Attorney Docket Number | 018563-002910US |

FOREIGN PATENT DOCUMENTS

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|-----------------------|--------------------------|---------------------------|---------------------|-----------------------------------|--------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|
| | | Country Code ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
| | CY | EP | 731,673 | B1 | 09-18-1998 | Andersson et al. | | |
| | CZ | EP | 774,933 | B1 | 05-28-1997 | Oden et al. | | |
| | DA | FR | 2,652,256 | A1 | 03-29-1991 | Jourda | | <input type="checkbox"/> |
| | DB | FR | 2,369,828 | A1 | 06-02-1978 | Suyehiro | | <input type="checkbox"/> |
| | DC | WO | 90/08,512 | A1 | 08-09-1990 | Lemcren | | <input type="checkbox"/> |
| | DD | WO | 91/04,713 | A1 | 04-18-1991 | Jourda et al. | | <input type="checkbox"/> |
| | DE | WO | 94/10,935 | A1 | 05-26-1994 | Andreiko et al. | | <input type="checkbox"/> |
| | DF | WO | 98/44,865 | A1 | 10-15-1998 | Andersson | | <input type="checkbox"/> |
| | DG | WO | 98/58,596 | A1 | 12-30-1998 | Chishti et al. | | <input type="checkbox"/> |

Examiner
SignatureDate
Considered

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4 of 10

Complete if Known

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|------------------------|--------------------|
| Application Number | 10/087,153 |
| Filing Date | February 28, 2002 |
| First Named Inventor | PAVLOVSKAIA, ELENA |
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| Examiner Name | MANAHAN, TODD E. |
| Attorney Docket Number | 018563-002910US |

NON PATENT LITERATURE DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|---------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| | DH | ALEXANDER et al., "The DigiGraph Work Station Part 2, Clinical Management," JCO (July 1990), pp. 402-407. | |
| | DI | ALTSCHULER et al., "Laser Electro-Optic System for Rapid Three-Dimensional (3D) Topographic Mapping of Surfaces," <i>Optical Engineering</i> , Vol. 20(6) (1981), pp. 953-961. | |
| | DJ | ALTSCHULER et al., "Measuring Surfaces Space-Coded by a Laser-Projected Dot Matrix," <i>SPIE Imaging Applications for Automated Industrial Inspection and Assembly</i> , vol. 182 (1979), p. 187-191. | |
| | DK | ALTSCHULER et al., "Analysis of 3-D Data for Comparative 3-D Serial Growth Pattern Studies of Oral-Facial Structures," Program and Abstracts of Papers, Feb. 1975, <i>Journal of Dental Research</i> , Vol. 54, IADR Abstracts 1979, 2 pages total. | |
| | DL | ALTSCHULER, "3D Mapping of Maxillo-Facial Prosthesis," AADR Abstract #607, 1980, 2 pages total.. | |
| | DM | American Association for Dental Research, Summary of Activities, March 20-23, 1980, Los Angeles, CA, p. 195. | |
| | DN | ANDERSSON et al., "Clinical Results with Titanium Crowns Fabricated with Machine Duplication and Spark Erosion," <i>Acta Odontologica Scandinavica</i> , vol. 47 (1989), pp. 279-286. | |
| | DO | BAUMRIND et al., "A stereophotogrammetric system for the detection of prosthesis loosening in total hip arthroplasty, Applications of Human Biostereometrics (NATO)," Proceedings of the Society of Photo-Optical Instrumentation Engineers, Vol. 166, July 9-13, 1978, pp. 112-123. | |
| | DP | BAUMRIND et al., "Mapping the Skull in 3-D, Reprinted from The Journal, <i>California Dental Association</i> , Vol. 48, No. 2 (1972 Fall Issue) 11 pages total. | |
| | DQ | BAUMRIND et al., "Seminars in Orthodontics," <i>Seminars in Orthodontics</i> , Vol. 7, No. 4 (Dec. 2001), p. 222. | |
| | DR | BAUMRIND, "A System for Craniofacial Mapping Through the Integration of Data from Stereo X-Ray Films and Stereo Photographs," An invited paper submitted to the 1975 American Society of Photogram. Symposium on Close-Range Photogram. Systems, University of Ill., Aug. 26-30, 1975, pp. 1-25. | |
| | DS | BAUMRIND, "Integrated Three-Dimensional Craniofacial Mapping: Background, Principles, and Perspectives," <i>Seminars in Orthodontics</i> , Vol. 7, No. 4 (Dec. 2001), pp. 223-232. | |
| | DT | BEGOLE et al., "A Computer System for the Analysis of Dental Casts," <i>The Angle Orthodontist</i> , Vol. 51 No. 3 (July 1981), pp. 253-259. | |
| | DU | BERNARD et al., "Computerized diagnosis in Orthodontics for Epidemiological Studies" (progress report), Abstracts of Papers, <i>Journal of Dental Research</i> , Vol. 71, Special Issue March 1-14, 1992, pp. 28-36. | |
| | DV | BHATIA et al., "A Computer-Aided Design for Orthognathic Surgery," <i>British Journal of Oral and Maxillofacial Surgery</i> , Vol. 22 (1984), pp. 237-253. | |
| | DW | BIGGERSTAFF et al., "Computerized analysis of occlusion in the postcanine dentition," <i>American Journal of Orthodontics</i> , Vol. 61, No. 3 (Mar. 1972), pp. 245-254. | |

| | |
|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 5 of 10

Complete if Known

| | |
|------------------------|--------------------|
| Application Number | 10/087,153 |
| Filing Date | February 28, 2002 |
| First Named Inventor | PAVLOVSKAIA, ELENA |
| Art Unit | 3732 |
| Examiner Name | MANAHAN, TODD E. |
| Attorney Docket Number | 018563-002910US |

NON PATENT LITERATURE DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|---------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| | DX | BIGGERSTAFF, "Computerized Diagnostic Setups and Simulations," <i>The Angle Orthodontist</i> , Vol. 40, No. 1 (Jan. 1970), pp. 28-36. | |
| | DY | BRANDESTINI et al., "Computer Machined Ceramic Inlays: In Vitro Marginal Adaptation," <i>Journal of Dental Research</i> , Vol. 64/Special Issue/Abstracts, IADR/AADR Abstracts 1985, 1 page total. | |
| | DZ | BROOK et al., "An Image Analysis System for the Determination of Tooth Dimensions from Study Casts: Comparison with Manual Measurements of Mesio-distal Diameter, Abstract of Papers, 1985, Dept. of Children's Dentistry and Orthodontics, <i>J Dent Res.</i> , March 1986, pp. 428-431. | |
| | EA | BURSTONE (interview), "Dr. Charles J. Burstone on The Uses of the Computer in Orthodontic Practice (Parts 1 and 2)," <i>Journal of Clinical Orthodontics</i> , (Part 1) Vol. 8, No. 7, July 1979; (Part 2) Vol. 8, No. 8 pp. 539-551, Aug. 1979. | |
| | EB | BURSTONE et al., "Precision adjustment of the transpalatal lingual arch: Computer arch form predetermination," <i>Am. Journal of Orthodontics</i> , Vol. 79, No. 2 (Feb. 1981), pp. 115-133. | |
| | EC | CHACONAS et al., "The DigiGraph Work Station, Part 1, Basic Concepts," <i>JCO</i> (June 1990), pp. 360-367. | |
| | ED | CHAFETZ et al., "Subsidence of the Femoral Prosthesis, A Stereophotogrammetric Evaluation," <i>Clinical Orthopaedics and Related Research</i> , No. 201 (December 1985), pp. 60-67. | |
| | EE | CHIAPPONE, "Constructing the gnathologic setup and positioner" <i>J. Clin. Orthod.</i> , 14:121-133, 1980. | |
| | EF | COTTINGHAM, "Gnathologic clear plastic positioner" <i>Am. J. Orthod.</i> , 55:23-31, 1969. | |
| | EG | CRAWFORD, "Computers in Dentistry: Part 1: CAD/CAM: The Computer Moves Chairside," "Part 2: F. Duret — A Man With A Vision," "Part 3: The Computer Gives New Vision- Literally," "Part 4: Bytes 'N Bites' The Computer Moves From The Front Desk To The Operator, <i>Canadian Dental Journal</i> , vol. 54(9), (1988), pp. 661-666. | |
| | EH | CRAWFORD, "CAD/CAM in the Dental Office: Does It Work?" <i>Canadian Dental Journal</i> , Vol. 57, No. 2 (Feb. 1991), pp. 121-123. | |
| | EI | CROOKS, "CAD/CAM Comes to USC," <i>USC Dentistry</i> , (Spring 1990) pp. 14-17. | |
| | EJ | CURETON, "Correcting malaligned mandibular incisors with removable retainers" <i>J. Clin. Orthod.</i> , 30:390-395, 1996. | |
| | EK | CURRY et al., "Integrated Three-Dimensional Craniofacial Mapping at the Craniofacial Research Instrumentation Laboratory/University of the Pacific," <i>Seminars in Orthodontics</i> , Vol. 7, No. 4 (Dec. 2001), pp. 258-265. | |
| | EL | CUTTING et al., "Three-Dimensional Computer-Assisted Design of Craniofacial Surgical Procedures: Optimization and Interaction with Cephalometric and CT-Based Models," <i>Plastic and Reconstructive Surgery</i> , Vol. 77, No. 6 (June 1986), pp. 877-885. | |
| | EM | DCS Dental AG, "The CAD/CAM 'DCS Titan System' for Production of Crowns/Bridges" <i>DSC Production AG</i> , Jan. 1992, pp. 1-7. | |

| | |
|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 6 of 10

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| Application Number | 10/087,153 |
| Filing Date | February 28, 2002 |
| First Named Inventor | PAVLOVSKAIA, ELENA |
| Art Unit | 3732 |
| Examiner Name | MANAHAN, TODD E. |
| Attorney Docket Number | 018563-002910US |

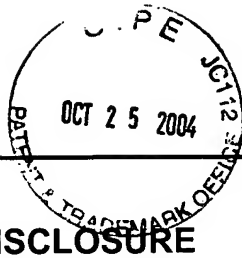
NON PATENT LITERATURE DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|---------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| | EN | DEFRANCO et al., "Three-Dimensional Large Displacement Analysis of Orthodontic Appliances," <i>J. Biomechanics</i> , Vol. 9 (1976), pp. 793-801. | |
| | EO | Dental Institute University of Zurich Switzerland, Program for International Symposium on Computer Restorations: State of the Art of the CEREC-Method, May 1991, 3 pages total. | |
| | EP | DenTrac Corporation, Dentrac document, pp. 4-13. | |
| | EQ | DURET et al., "CAD-CAM in Dentistry," <i>Journal of the American Dental Association</i> , Vol. 117 (Nov. 1988), pp. 715-720. | |
| | ER | DURET et al., "CAD/CAM imaging in dentistry," <i>Current Opinion in Dentistry</i> , Vol. 1 (1991), pp. 150-154. | |
| | ES | DURET, "The Dental CAD/CAM, General Description of the Project," <i>Hennson International Product Brochure</i> , Jan. 1986., 18 pages total. | |
| | ET | DURET, "Vers une prothese informatisee," (English translation also attached), <i>Tonus</i> , vol. 75, (Nov. 15, 1985), pp. 55-57. | |
| | EU | ECONOMIDES, "The Microcomputer in the Orthodontic Office," <i>JCO</i> , (Nov. 1979), pp. 767-772. | |
| | EV | ELSASSER, "Some observations on the history and uses of the Kesling positioner" <i>Am. J. Orthod.</i> , 36:368-374, 1950. | |
| | EW | FABER et al., "Computerized interactive orthodontic treatment planning," <i>Am. J. Orthod.</i> , Vol. 73, No. 1 (Jan. 1978), pp. 36-46. | |
| | EX | FELTON et al., "A computerized analysis of the shape and stability of mandibular arch form," <i>Am. Journal of Orthodontics and Dentofacial Orthopedics</i> , Vol. 92, No. 6 (Dec. 1987), pp. 478-483. | |
| | EY | FRIEDE et al., "Accuracy of Cephalometric Prediction in Orthognathic Surgery," <i>Abstract of Papers, Journal of Dental Research</i> , Vol. 70 (1987), pp. 754-760. | |
| | EZ | GIM-ALLDENT Deutschland, "Das DUX System: Die Technik" 4 pages total. | |
| | FA | GRAYSON, "New Methods for Three Dimensional Analysis of Craniofacial Deformity," Symposium: Computerized Facial Imaging in Oral and Maxillofacial Surgery, AAOMS Sept. 13, 1990, 3 pages total. | |
| | FB | GUESS et al., "Computer Treatment Estimates in Orthodontics and Orthognathic Surgery," <i>JCO</i> , (April, 1989), pp. 262-28. | |
| | FC | HEAVEN et al., "Computer-based Image Analysis of Artificial Root Surface Caries," "Automated Identification of Landmarks in Cephalometric Radiographs," <i>Abstracts of Papers, Journal of Dental Research</i> , Vol. 67, March 9-13, 1988, 2 pages total. | |

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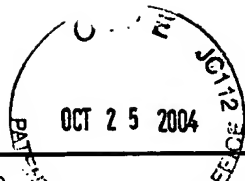
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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | Application Number | 10/087,153 |
| | | Filing Date | February 28, 2002 |
| | | First Named Inventor | PAVLOVSKAIA, ELENA |
| | | Art Unit | 3732 |
| | | Examiner Name | MANAHAN, TODD E. |
| | | Attorney Docket Number | 018563-002910US |
| Sheet | 7 | of | 10 |

| NON PATENT LITERATURE DOCUMENTS | | | |
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| | FD | HOFFMANN et al., "Role of Cephalometry for Planning of Jaw Orthopedics and Jaw Surgery Procedures," (Article Summary in English, article in German), <i>Informationen</i> , (March 1991), pp. 375-396. | |
| | FE | HUCKINS, "CAD-CAM Generated Mandibular Model Prototype from MRI Data," <i>AAOMS</i> 1999, p. 96. | |
| | FF | Inside the ADA, <i>Journal Of The American Dental Assoc.</i> , Vol. 118 (March 1989) 9 pages total. | |
| | FG | JCO Interviews, "Craig Andreiko, DDS, MS on the Elan and Orthos Systems", JCO, (Aug. 1994), pp. 459-468. | |
| | FH | JCO Interviews, "Dr. Homer W. Phillips on Computers in Orthodontic Practice, Part 2," JCO, (Dec. 1983), pp. 819-831. | |
| | FI | JERROLD, "The problem, electronic data transmission and the law," <i>AJO-DO</i> , (Apr. 1988), pp. 478-479. | |
| | FJ | JONES et al., "An Assessment of the Fit of a Parabolic Curve to Pre- and Post-Treatment Dental Arches," <i>British Journal of Orthodontics</i> , Vol. 16 (1989), pp. 85-93. | |
| | FK | KAMADA et al., "Case reports on tooth positioners using LTV vinyl silicone rubber" <i>J. Nihon University School of Dentistry</i> , 26(1):11-29, 1984. | |
| | FL | KAMADA et al., "Construction of tooth positioners with LTV vinyl silicone rubber and some case reports" <i>J. Nihon University School of Dentistry</i> , 24(1):1-27, 1982. | |
| | FM | KANAZAWA et al., "Three-Dimensional Measurements of the Occlusal Surfaces of Upper Molars in a Dutch Population," <i>J. Dent Res.</i> , Vol. 63, No. 11 (Nov. 1984), pp. 1298-1301. | |
| | FN | KESLING, "Coordinating the predetermined pattern and tooth positioner with conventional treatment" <i>Am. J. Orthod. Oral. Surg.</i> , 32:285-293, 1946. | |
| | FO | KESLING, "The philosophy of the tooth positioning appliance" <i>Am. J. Orthod. Oral. Surg.</i> , 31(6):297-304, 1945. | |
| | FP | KLEEMANN et al., "The speed positioner" <i>J. Clin. Orthod.</i> , 30:673-680, 1996. | |
| | FQ | KURODA et al., "Three-dimensional dental cast analyzing system using laser scanning" <i>Am. J. Orthod. Dentofac. Orthop.</i> , 110:365-369, 1996. | |
| | FR | LAURENDEAU et al., "A Computer-Vision Technique for the Acquisition and Processing of 3-D Profiles of Dental Imprints: An Application in Orthodontics," <i>IEEE Transactions on Medical Imaging</i> , Vol. 10, No. 3 (Sept. 1991), pp. 453-461. | |
| | FS | LEINFELDER et al., "A new method for generating ceramic restorations: a CAD-CAM system," <i>Journal Of The American Dental Assoc.</i> , Vol. 118, No. 6 (Jun. 1989), pp. 703-707. | |

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| | FT | MCNAMARA et al., <i>Orthodontic and Orthopedic Treatment in the Mixed Dentition</i> , Needham Press, January 1993. pp.347-353. | | |
| | FU | MCNAMARA et al., "Invisible Retainers", <i>J. Clinical Orthodontics</i> , (August 1985) pp. 570-578. | | |
| | FV | MOERMANN et al., "Computer Machined Adhesive Porcelain Inlays: Margin Adaptation after Fatigue Stress," IADR Abstract 339, <i>Journal of Dental Research</i> , vol. 66(a) (1987), p. 339. | | |
| | FW | MÖRMANN et al., "Marginal Adaptation von adhasiven Porzellaninlays in vitro," <i>Schwizerische Monatsschrift für Zahnmedizin</i> , Vol. 85 (1985), p. 1118-1129. | | |
| | FX | MÖRMANN et al., "Marginale Adaptation von adhäsiven Porzellaninlays in vitro," Separatdruck aus: <i>Schweiz. Mschr. Zahnmed.</i> 95: 1118, 1985. | | |
| | FY | NAHOUM, "The vacuum formed dental contour appliance" <i>The New York State Dental Journal</i> , 30(9):385-390, Nov. 1964. | | |
| | FZ | NASH, "CEREC CAD/CAM Inlays: Aesthetics and Durability in a Single Appointment," <i>Dentistry Today</i> , (October 1990), pp. 20, 22-23, 54. | | |
| | GA | NISHIYAMA et al., "A new construction of tooth repositioner by LTV vinyl silicone rubber" <i>J. Nihon University School of Dentistry</i> , 19(2):93-102, 1977. | | |
| | GB | PINKHAM, "'Foolish' Concept Propels Technology," <i>Dentist</i> , Jan./Feb. 1989, 3 pages total. | | |
| | GC | PINKHAM, "Inventor's CAD/CAM may transform dentistry," <i>Dentist</i> , Sept. 1990, 3 pages total. | | |
| | GD | PONITZ, Invisible Retainers, 59 <i>Am. J. Orthodontics</i> , March 1971, pp. 266-272. | | |
| | GE | Procera Research Projects, <i>PROCERA Research Projects 1993 — Abstract Collection</i> , 1993, pp. 3-28. | | |
| | GF | REKOW, "A Review of the Developments in Dental CAD/CAM Systems," (contains references to Japanese efforts and content of the papers of particular interest to the clinician are indicated with a one-line summary of their content in the bibliography), <i>Dental Clinics: Prosthodontics and Endodontics</i> , pp.25-33, 1992. | | |
| | GG | REKOW, "CAD/CAM in Dentistry: A Historical Perspective and View of the Future," <i>Journal</i> , Vol. 58 No. 4, (April 1992), pp. 283, 287-288. | | |
| | GH | REKOW, "Computer-Aided Design and Manufacturing in Dentistry: A Review of the State of the Art," <i>The Journal of Prosthetic Dentistry</i> , Vol. 58, No. 4 (Oct. 1987), pp. 512-516. | | |
| | GI | REKOW, "Dental CAD-CAM Systems: What is the State of the Art?" <i>Journal of the American Dental Assoc.</i> , Vol. 122 (1991), pp. 43-48. | | |

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Sheet 9 of 10

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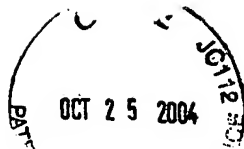
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| | GJ | REKOW, "Feasibility of an Automated System for Production of "Dental Restorations," PhD Thesis, Univ. of Minnesota, Nov. 1988, 244 pages total. | |
| | GK | RICHMOND et al., Research Reports, "The development of a 3D Cast Analysis System," <i>British Journal of Orthodontics</i> , pp. 53-54. | |
| | GL | RICHMOND, "Recording the dental cast in three dimensions," <i>Am. J. Orthod. Dentofac. Orthop.</i> , Vol. 92, No. 3, (Sept. 1987), pp.199-206. | |
| | GM | RUDGE, "Dental arch analysis: arch form, A review of the literature," <i>European Journal of Orthodontics</i> , Vol. 3, No. 4 (1981), pp.279-284. | |
| | GN | SAKUDA et al., "Integrated information-processing system in clinical orthodontics: An approach with use of a computer network system," <i>Am. J. Orthod. Dentofac. Orthop.</i> Vol. 101 No. 3 (March 1992), pp. 210-220. | |
| | GO | SHELLHAS et al., "Three-Dimensional Computer Tomography in Maxillofacial Surgical Planning," <i>Arch Otolamgol Head Neck Surg.</i> Vol. 114 (April 1988), pp. 438-442. | |
| | GP | SEGÜ et al., "Computer-aided Cefalometry and New Mechanics in Orthodontics" (Article Summary in English, article in German), <i>Fortschr. Kieferorthop.</i> 44, 370-376 (Nr. 5), 1983 | |
| | GQ | SHILLIDAY, "Minimizing finishing problems with the mini-positioner" <i>Am. J. Orthod.</i> 59:596-599, 1971 | |
| | GR | Siemens, "CEREC - Computer-Reconstruction," <i>High Tech in der Zahnmedizin</i> , 14 page total. | |
| | GS | Sirona Dental Systems GmbH, CEREC 3D, Manuel utilisateur, Version 2.0X (in French), 2003, 114 pages total. | |
| | GT | STOLL et al., "Computer-aided Technologies in Dentistry" (Article Summary in English, article in German), <i>Dtsch Zahnärztl Z</i> 45, 314-322, 1990. | |
| | GU | U.S. Department of Commerce, National Technical Information Service, "Automated Crown Replication Using Solid Photography SM," Solid Photography Inc. Melville NY, October 1977, 21 pages total. | |
| | GV | U.S. Department of Commerce, National Technical Information Service, "Holodontology: An Introduction to Dental Laser Holography," School of Aerospace Medicine Brooks AFB Tex, March 1973, 37 pages total. | |
| | GW | U.S. Provisional Patent Application No. 60/050342, filed on June 20, 1997, 41 pages total. | |
| | GX | VAN DER LINDEN et al., Three-Dimensional Analysis of Dental Casts by Means of the Optocom," <i>J Dent Res</i> , July-August 1972, p. 1101. | |
| | GY | VAN DER LINDEN, "A New Method to Determine Tooth Positions and Dental Arch Dimensions," July-August 1972, p. 1104. | |

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| | GZ | VAN DER ZEL, "Ceramic-fused-to-metal Restorations with a New CAD/CAM System," <i>Quintessence International</i> , vol. 24(11) (1993), pp. 769-778. | |
| | HA | VÁRADY et al., "Reverse Engineering of Geometric Models - An Introduction," May 13, 1996, pp. 1-28. | |
| | HB | WARUNEK et al., "Clinical use of silicone elastomer appliances" <i>JCO</i> , MH (10):694-700, 1989. | |
| | HC | WARUNEK et al., "Physical and mechanical properties of elastomers in orthodontic positioners" <i>Am. J. Orthod. Dentofac. Orthop.</i> , 95:388-400, 1989. | |
| | HD | WELLS, "Application of the positioner appliance in orthodontic treatment" <i>Am. J. Orthodont.</i> , 58:351-366, 1970. | |
| | HE | WILLIAMS, "Dentistry and CAD/CAM: Another French Revolution," <i>Journal of Dental Practice Admin.</i> , Jan./March 1987, pp. 2-5. | |
| | HF | WILLIAMS, "The Switzerland and Minnesota Developments in CAD/CAM," <i>Journal of Dental Practice Admin.</i> , pp. 50-55, April/June 1987. | |
| | HG | WISHAN, "New Advances in Personal Computer Applications for Cephalometric Analysis, Growth Prediction, Surgical Treatment Planning and Imaging Processing," <i>Symposium: Computerized Facial Imaging in Oral and Maxillofacial Surgery</i> , AAOMS, Sept. 13, 1990, p. 5. | |
| | HH | YAMAMOTO et al., "Three-Dimensional Measurement of Dental Cast Profiles and Its Applications to Orthodontics," <i>Annual Int'l Conf. of IEEE Engineering in Medicine and Biology Society</i> , Vol. 12, No. 5, pp. 2051-2053, 1990 | |
| | HI | YAMAMOTO et al., "Optical measurement of dental cast profile and application to analysis of three-dimensional tooth movement in orthodontics," <i>Frontiers in Med. and Biol. Eng'g</i> , Vol. 1, No. 2 (1988), pp. 119-130. | |

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